## AMENDMENTS TO THE CLAIMS

*This listing will replace all prior versions, and listings, of claims in the application:*

1. (Currently amended) A fluid bed granulation process of a predetermined substance, comprising:

forming granules in a granulation fluid bed through continuous growth of solid seeds of said predetermined substance, continuously fed into the granulation fluid bed at the same time as a flow of an appropriate growth substance in a liquid state; and

cooling the formed granules in a second, cooling fluid bed;

wherein a same flow of fluidification air is used to form and continuously support the granules, the flow arranged in order first through said cooling fluid bed and then through said granulation fluid bed[[s]], which are substantially arranged in series with respect to said flow.

2. (Previously presented) The process according to claim 1, wherein the finished granules of said substance are transferred substantially in cascade from said granulation bed to said cooling bed.

3. (Currently amended) An apparatus for carrying out the fluid bed granulation process according to claim 1, comprising:

a self-supporting structure substantially shaped like a container, defining a granulation space inside of it;

a shelf positioned in the granulation space, intended to support a granulation fluid bed, said shelf being permeable to gas flows;

a distributor device for solid seeds of granules of a substance to be granulated;

at least one distributor-supplier device for granule growth liquid substance;

a base plate positioned in said space below and in a predetermined spaced relationship from said shelf, said base plate being intended to support a respective cooling fluid bed of hot finished granules coming from said granulation bed, said cooling bed being in fluid communication with said granulation bed through said permeable shelf;

a downcomer, extending vertically in said space, suitable for the transfer of finished granules from said granulation fluid bed to said cooling fluid bed at said base plate; and

means for feeding and distributing fluidification air in said space below said base plate, to form and maintain said cooling bed and said granulation bed, which are arranged in series with respect to said flow.

4. (Previously presented) The apparatus according to claim 3, wherein said downcomer comprises a vertical panel, supported in said space in a predetermined spaced relationship from a wall of said container structure, defining with it an interspace, said panel having a horizontal bottom side spaced from said base plate, so as to define with it a passage, suitable for putting said interspace in communication with the space above the aforementioned base plate.

5. (Previously presented) The apparatus according to claim 4, wherein said interspace is in communication at the top with said space, through an opening provided in it.

6. (Previously presented) The apparatus according to claim 3, wherein said cooling fluid bed is in communication with the outside through a pocket between a wall of said container structure and a front panel fixed to the base plate supporting the cooling bed and preferably parallel to said top wall.

7. (Previously presented) The apparatus according to claim 6, wherein said front panel comprises a mobile bulkhead, able to slide vertically and adjustable in height.